

tropical Mexico, is of a peculiar shape; oblong, pentagonal, five celled, containing a milky pulp. It is somewhat sweet and edible, in many places being prepared with sugar in the form of conserves. The leaves are compound and digitate, composed of seven distinct acute lobes." (W. E. Safford.)

46697. LIVISTONA JENKINSIANA Griffith. Phœnicaceæ. Palm.

From Buitenzorg, Java. Presented by the director of the Botanic Garden.
Received October 25, 1918.

Seeds of an East Indian palm, 20 to 30 feet tall, with a thick, round crown. The leaves are used for covering tops of boats and umbrellas.

For previous introduction and description, see S. P. I. No. 45591.

46698 to 46703.

From Jamaica Plain, Mass. Seeds collected at the Arnold Arboretum by Dr. Walter Van Fleet, of the Bureau of Plant Industry. Received October 28, 1918. Quoted notes by Dr. Van Fleet, except as otherwise stated.

46698. × MALUS ARNOLDIANA Rehder. Malaceæ. Apple.

"Hybrid of *Malus pulcherrima*, grown at the Arnold Arboretum; vigorous and very fruitful. May be useful as a stock for dwarfing commercial varieties of apples and for variety breeding."

Attention has been called to the hybrid crab apple, *Malus cerasifera*. This plant is probably one of the parents of another hybrid which sprang up spontaneously in the Arboretum many years ago and has been called *M. arnoldiana*. The other parent is probably *M. floribunda* [*M. pulcherrima*], itself believed to be a hybrid which originated in China. If this view of the origin of *M. arnoldiana* is correct, it is the offspring of two hybrids of different parentage and is a good illustration of what can be obtained by crossing and recrossing the crab apples. It is a low, broad, bushy tree with long, arching upper branches which are raised well above the general head of the plant and are wonderful objects when clothed from end to end with flowers and the blue sky is seen between. The flower buds, like those of *M. floribunda*, are of deep rose color and the petals, after the flowers open, gradually turn from rose color to white. The flowers, however, are as large as those of *M. cerasifera*, or nearly twice as large as those of *M. floribunda*, and the red fruits are intermediate in size between those of the parents. (Adapted from *Arnold Arboretum Bulletin of Popular Information*, May 16, 1918.)

46699 and 46700. MALUS PRUNIFOLIA RINKI (Koidz.) Rehder. Malaceæ. Apple.

46699. "Fruits from the best trees of this variety in the Arboretum. Fruits are of quite large size and good quality. Tree healthy and vigorous. For breeding and stock trials."

46700. "Handsome variety formerly considered a form of the Siberian crab, *M. baccata*, but considered by Prof. Sargent as being much nearer to *M. prunifoliarinki*. Good-sized fruits of fine quality. For breeding and stock trials."

46701. MALUS TRANSITORIA TORINGOIDES Rehder. Malaceæ. Apple.

"A large and vigorous variety of *M. transitoria*, with good-sized astringent fruits. For breeding purposes."